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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,551	04/08/2004	John K. Apostolides	00478CIPCIPCIP	8386
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K&L GATES LLP 210 SIXTH AVENUE PITTSBURGH, PA 15222-2613			EXAMINER RIVELL, JOHN A	
			ART UNIT 3753	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/820,551	Applicant(s) APOSTOLIDES, JOHN K.	
	Examiner JOHN RIVELL	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/3/10 (RCE).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-10,12-18,37-40,44,55-58,60-69 and 81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10,12-18,37-40,44,55-58,60-69 and 81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05032010</u> . | 6) <input type="checkbox"/> Other: _____ |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 3, 2010 has been entered.

Applicant's arguments filed May 3, 2010 have been fully considered but they are not persuasive. Claims 5, 11, 19-36, 41-43, 45-54, 59 and 70-80 have been canceled. Claims 1-4, 6-10, 12-18, 37-40, 44, 55-58, 60-69 and 81 remain pending.

Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 17, being ultimately dependent on claim 7, recites that the "system of claim 13 further comprises at least one quick disconnect connection operatively associated with at least one of said inlet/outlet ports". Claim 7 has been amended to include the recitation, at lines 44-45, "at least one quick disconnect connection operatively associated with at least one of said first inlet/outlet port and said second inlet/outlet port". Clearly the recitation of claim 17, "operatively associated with at least one of said inlet/outlet ports" does not further limit the recitation of claim 7, "operatively associated with at least one of said first inlet/outlet port and said second inlet/outlet port". For the

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purposes below, the recitation in claim 17 is taken to refer to the same “quick disconnect” that is recited in claim 7.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 7, 10, 12, 13, 16-18, 37, 40, 44, 55, 58, 60-63 and 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. (U. S. Pat. No. 3,043,499) in view of Robert et al. (U. S. Pat. No. 5,566,781 cited by applicant) further in view of Raines (U. S. Pat. No. 4,246,932).

The patent to Knobloch et al. discloses, in figure 2 for example, a recirculating system in which fluid from two parallel connected valve chest chambers 5, 5a flows from the chest chambers 5, 5a to a supply line 9, cylinder 3 return line 8 and back in parallel to valve chests 5, 5a. Note in particular fill passage 12.

The patent to Knobloch et al., in particular the recirculation circuit demonstrates a known “valve assembly comprising: a first check valve (outlet check valve 7) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with at least a portion (at supply conduit 9) of a fluid system; wherein the application of positive pressure from an inlet/outlet port (4) at a common refill/evacuation location (chamber 5) causes fluid to flow from the common refill/evacuation location through said first check valve (7) into said fluid system: a

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second check valve (inlet check valve 6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication with a portion (at return conduit 8) of said fluid system, wherein the application of negative pressure from the inlet/outlet port (4) at the common refill/evacuation location (5) causes fluid to flow from said fluid system (from conduit 8) through said second check valve (6) into the common refill/evacuation location (5) and wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6 via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the inlet/outlet port (where conduit 4 enters chamber 5) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the common refill/evacuation location (5)” as recited in claim 1.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having “at least one quick disconnect connection operatively associated with said inlet/outlet port” and “a flow control valve in direct fluid communication with the inlet/outlet port”.

Firstly, the patent to Raines discloses that it is known in the art to employ a “quick disconnect” read at the friction/abutment fit of the syringe and its inlet/outlet port at the end of the syringe “S” with the “common refill/evacuation location” chamber 100,

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at bore 60/lip 66 of the valve assembly for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port of the syringe to the refill/evacuation location at bore 60, lip 66 of the valve assembly.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., a “quick disconnect”, such as a friction/abutment fit, connecting the end of conduit 4, 4a with the valve chest 5, 5a, respectively, for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port 4, 4a to the refill/evacuation location 5, 5a, respectively, as recognized by Raines.

Secondly, the patent to Robert et al. discloses that it is known in the art to employ a “flow control valve” at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 4, in Knobloch et al., “said second check valve (6 is) in fluid communication with at least one fluid reservoir” read at cylinder 3, as recited.

Regarding claim 6, in Raines, “at least one fluid component (at valve chest chamber 5 or pump piston 2 is) in fluid communication with said inlet/outlet port (4)” as recited.

Regarding claim 7, the patent to Knobloch et al. discloses a “valve system comprising: a first valve assembly (at valve chest 5) comprising, a first check valve (7) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with a first portion (the conduit leading from check valve 7 to the conduit 9) of a first fluid system (chest 5 to conduit 9 to cylinder 3 to return conduit 8 back to chest 5), wherein the application of positive pressure from a first inlet/outlet port (4) at a first common refill/evacuation location (valve chest 5) causes fluid to flow from the first common refill/evacuation location (5) through said first check valve (7) into the first portion of said first fluid system; a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication with at least the first portion (conduit 9, via conduit 8 and cylinder 3) of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port (4) at the first common refill/evacuation location (5) causes fluid to flow

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from the first portion (conduit 9) of said first fluid system through said second check valve (6) into the first common refill/evacuation location (5), wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6) via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the first inlet/outlet port (4) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the first common refill/evacuation location (5);... a second valve assembly (at valve chest 5a) comprising, a third check valve (7a) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve (7a), further comprising an outlet of said third check valve being in fluid communication with a second portion (the conduit leading from check valve 7a to conduit 9) of a second fluid system (valve chest 5a to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5a), wherein the application of positive pressure causes from a second inlet/outlet port (4a) at a second common refill/evacuation location (chamber 5a) fluid to flow from the second common refill/evacuation location (at chest 5a) through said third check valve (7a) into the second portion (leading to conduit 9) of said second fluid system; a fourth check valve (6a) having an outlet in fluid communication with said inlet of said third check valve (7a), said fourth check valve (6a) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve (6a), further comprising an inlet of said fourth check valve (6a) being in fluid communication with at least the second portion (the conduit leading to conduit 9 from

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check valve 7a via return conduit 8 and cylinder 3) of said second fluid system (5a, 9, 3, 8, 5a), wherein the application of negative pressure from a second inlet/outlet port (4a) at the second common refill/evacuation location (5a) causes fluid to flow from the second portion of said second fluid system through said fourth check valve (6a) into the second common refill/evacuation location (5a), wherein said outlet of said third check valve (7a) is in fluid communication with the inlet of said fourth check valve (6a) via the fluid circuit from the outlet of check valve 7a, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6a); the second inlet/outlet port (4a) in direct fluid communication with said inlet of said third check valve (7a) and in direct fluid communication with said outlet of said fourth check valve (6a) at the second common refill/evacuation location (5a)" as recited.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having "at least one quick disconnect connection operatively associated with at least one of said first inlet/outlet port and said second inlet/outlet port" and "a flow control valve in direct fluid communication with the first (and) second inlet/outlet port".

Firstly, the patent to Raines discloses that it is known in the art to employ a "quick disconnect" read at the friction/abutment fit of the syringe and its inlet/outlet port at the end of the syringe "S" with the "common refill/evacuation location" chamber 100, at bore 60/lip 66 of the valve assembly for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port of the syringe to the refill/evacuation location at bore 60, lip 66 of the valve assembly.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., a “quick disconnect”, such as a friction/abutment fit, connecting the end of conduit 4, 4a with the valve chest 5, 5a, respectively, for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port 4, 4a to the refill/evacuation location 5, 5a, respectively, as recognized by Raines.

Secondly, the patent to Robert et al. discloses that it is known in the art to employ a “flow control valve” at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4 and 4a, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 10, in Knobloch et al., “at least one of said second check valve (6) and said fourth check valve (6a is) in fluid communication with at least one fluid reservoir” read at cylinder 3, as recited.

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Regarding claim 12, in Knobloch et al., “at least one fluid component (such as valve chests 5, 5a or pump piston 4 is) in fluid communication with at least one of said inlet/outlet ports” 4, 4a, as recited.

Regarding claims 13 and 16-18, Knobloch et al., as modified by Robert et al., and Raines, discloses the claimed invention except for additional “valve assemblies” including a “third” valve assembly, the additional assembly including additional respective inlet and outlet check valves connected to an additional common “refill/evacuation location”.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the valve assembly of Knobloch et al., as modified by Robert and Raines, such that one employs multiple separate individual valve assemblies to transfer fluid from respective individual inlets to respective individual outlets, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

In comparing the claim language at issue with a single valve assembly of Knobloch et al., as modified by Robert and Raines, it is clear that the claim language merely reflects multiple individual separate assemblies, each one of which is no different than the other or from that assembly demonstrated to be known by Knobloch et al., as modified by Robert and Raines.

Regarding claim 37, the patent to Knobloch et al. discloses a “module comprising: a first valve assembly (at valve chest 5) comprising, a first check valve (7)

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structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (7), further comprising an outlet of said first check valve (7) being in fluid communication with a first portion (the conduit leading from check valve 7 to conduit 9) of a first fluid system (chest 5 to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5), wherein the application of positive pressure from a first inlet/outlet port at (4) a first common refill/evacuation location (chamber 5) causes fluid to flow from the first common refill/evacuation location (5) through said first check valve (7) into said first fluid system; a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), said second check valve (6) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further comprising an inlet of said second check valve (6) being in fluid communication (via conduit 8 and cylinder 3) with at least the first portion (the conduit leading from check valve 7 to conduit 9) of said first fluid system, wherein the application of negative pressure from the first inlet/outlet port (4) at the first common refill/evacuation location (5) causes fluid to flow from the first portion of said first fluid system through said second check valve (6) into the first common refill/evacuation location (5) wherein said outlet of said first check valve (7) is in fluid communication with the inlet of said second check valve (6) via the fluid circuit from the outlet of check valve 7, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6); the first inlet/outlet port (4) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the first common refill/evacuation location (5);

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and,... at least a second valve assembly (5a) comprising, a third check valve (7a) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve (7a), further comprising an outlet of said third check valve (7a) being in fluid communication with a second portion (the conduit leading from check valve 7a to conduit 9) of a second fluid system (valve chest 5a, to conduit 9 to cylinder 3 to return conduit 8 back to valve chest 5a), wherein the application of positive pressure from a second inlet/outlet port (4a) at a second common refill/evacuation location (5a) causes fluid to flow from the second common refill/evacuation location (5a) through said third check valve (7a) into said second fluid system; a fourth check valve (6a) having an outlet in fluid communication with said inlet of said third check valve (7a), said fourth check valve (6a) being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve (6a), further comprising an inlet of said fourth check valve (6a) being in fluid communication (via return conduit 8, cylinder 3) with at least the second portion (the conduit leading from check valve 7a to conduit 9) of said second fluid system, wherein the application of negative pressure from a second inlet/outlet port (4a) at the second common refill/evacuation location (5a) causes fluid to flow from the second portion of said second fluid system through said fourth check valve (6a) into the second common refill/evacuation location (5a); wherein said outlet of said third check valve (7a) is in fluid communication with the inlet of said fourth check valve (6a) via the fluid circuit from the outlet of check valve 7a, to conduit 9, to cylinder 3, to conduit 8 to the inlet of check valve 6a); the second inlet/outlet port (4a) in direct fluid

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communication with said inlet of said third check valve (7a) and in direct fluid communication with said outlet of said fourth check valve (6a) at the second common refill/evacuation location 95a);... and, said first and second valve assemblies (5, 5a) being coupled together (as by their associated plumbing) to form said module” as recited.

Thus the patent to Knobloch et al. discloses all the claimed features with the exception of having “at least one quick disconnect connection operatively associated with at least one of said first inlet/outlet port and said second inlet/outlet port” and “a flow control valve in direct fluid communication with the first (and) second inlet/outlet port”.

Firstly, the patent to Raines discloses that it is known in the art to employ a “quick disconnect” read at the friction/abutment fit of the syringe and its inlet/outlet port at the end of the syringe “S” with the “common refill/evacuation location” chamber 100, at bore 60/lip 66 of the valve assembly for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port of the syringe to the refill/evacuation location at bore 60, lip 66 of the valve assembly.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., a “quick disconnect”, such as a friction/abutment fit, connecting the end of conduit 4, 4a with the valve chest 5, 5a, respectively, for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port 4, 4a to the refill/evacuation location 5, 5a, respectively, as recognized by Raines.

Secondly, the patent to Robert et al. discloses that it is known in the art to employ a "flow control valve" at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4 and 4a, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 40, in Knobloch et al., "at least one of said second check valve (6) and said fourth check valve (6a) being in fluid communication with at least one fluid reservoir" read at cylinder 3, as recited.

Regarding claim 44, in Knobloch et al., "at least one fluid component (such as valve chests 5, 5a or pump piston 4 is) in fluid communication with at least one of said inlet/outlet ports" 4, 4a as recited.

Regarding claim 55, in making and/or using the device of Knobloch et al. one necessarily performs a method of "of performing at least one fluid operation in a fluid system, said method comprising: structuring a first check valve (7) to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check

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valve (7), further structuring said first check valve (7) with an outlet in fluid communication with a first portion (the conduit leading from check valve 7 to conduit 9) of a fluid system (valve chest 5 to conduit 9 to cylinder 3 to return conduit back to valve chest 5), wherein the application of positive pressure from an inlet/outlet port (4) at a common refill/evacuation location (85) causes fluid to flow from the common refill/evacuation location (5) through said first check valve (7) into said fluid system; structuring a second check valve (6) having an outlet in fluid communication with said inlet of said first check valve (7), further structuring said second check valve (6) to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (6), further structuring said second check valve (6) such that said second check valve (6) comprises an inlet of said second check valve (6) being in fluid communication (via conduit 8, cylinder 3) with at least the first portion (the conduit leading from check valve 7 to conduit 9) of said fluid system, wherein the application of negative pressure from the inlet/outlet port (4) at the common refill/evacuation location (5) causes fluid to flow from said fluid system through said second check valve (6) into the common refill/evacuation location (5), and further structuring said second check valve (6) such that said inlet of said second check valve is in fluid communication with said outlet of said first check valve (7) via the connecting fluid circuit between check valve 7, conduit 9, cylinder 3, conduit 8 to the inlet of check valve 6); positioning the inlet/outlet port (4) in direct fluid communication with said inlet of said first check valve (7) and in direct fluid communication with said outlet of said second check valve (6) at the common refill/evacuation location (5)" as recited.

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Thus the patent to Knobloch et al. discloses all the claimed features with the exception of “operatively associating at least one quick disconnect with said inlet/outlet port” and “positioning a flow control valve in direct fluid communication with the inlet/outlet port”.

Firstly, the patent to Raines discloses that it is known in the art to employ a “quick disconnect” read at the friction/abutment fit of the syringe and its inlet/outlet port at the end of the syringe “S” with the “common refill/evacuation location” chamber 100, at bore 60/lip 66 of the valve assembly for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port of the syringe to the refill/evacuation location at bore 60, lip 66 of the valve assembly.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., a “quick disconnect”, such as a friction/abutment fit, connecting the end of conduit 4, 4a with the valve chest 5, 5a, respectively, for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port 4, 4a to the refill/evacuation location 5, 5a, respectively, as recognized by Raines.

Secondly, the patent to Robert et al. discloses that it is known in the art to employ a “flow control valve” at valve 63, in communication with an inlet/outlet port at fitting 68, which fitting 68 is located within a recirculating fluid circuit, for the purpose of controlling the flow of fluid within the fluid line in which valve 63 is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al. a valve located in any portion of fluid line 4, including conduit 12, for the purpose of controlling the flow of fluid within the fluid line in which this is located such that, depending on the pressure differential in that line, fluid flows to and/or from the fluid recirculating circuit, such as flowing to and/or from the valve chests 5, 5a, as recognized by Robert et al.

Regarding claim 58, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising positioning said second check valve (6 of Knobloch et al.) in fluid communication with at least one fluid reservoir” read at cylinder 3, as recited.

Regarding claim 60, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising operatively associating at least one fluid component (such as valve chests 5, 5a or pump piston 4) in fluid communication with said inlet/outlet port (4)” as recited.

Regarding claim 61, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising applying positive pressure at said common refill/evacuation location” 5 through conduit 4 as recited.

Regarding claim 62, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising applying negative pressure at said common refill/evacuation location (5)

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after said applying positive pressure at said common refill/evacuation location (5)” as recited.

Regarding claim 63, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising performing at least one fluid refill operation by said applying positive pressure at said common refill/evacuation location (5)” as recited.

Regarding claim 65, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising applying negative pressure at said common refill/evacuation location (5)” as recited.

Regarding claim 66, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising applying positive pressure at said common refill/evacuation location (5) after said applying negative pressure at said common refill/evacuation location (5)” as recited.

Regarding claim 67, in making and/or using the device of Knobloch et al., as modified by Robert and Raines, one necessarily performs a further method step “comprising performing at least one fluid evacuation operation by said applying negative pressure at said common refill/evacuation location (5)” as recited.

Claims 2, 3, 8, 9, 14, 15, 38, 39, 56, 57, 64, 68, 69 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knobloch et al. in view of Robert et al., and

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Raines, as applied to claims 1, 4, 6, 7, 10, 12, 13, 16-18, 37, 40, 44, 55, 58, 60-63 and 65-67 above, further in view of Gargas (U. S. Pat. No. 4,684,334).

The patent to Knobloch et al., as modified by Robert et al. and Raines, discloses all the claimed features with the exception of having “said fluid system portion (include) at least a pre-filter portion... being in fluid communication with at least one fluid filter”.

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a “pre-filter portion” of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Knobloch et al., as modified by Robert et al. and Raines, in conduit 4 and/or 4a, a filter element thus forming a “pre-filter portion” for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Response to Arguments

Regarding applicants remarks as they may apply to the above, the arguments that:

“the claim elements as recited in operative association with a ‘quick disconnect’ feature are not taught, disclosed, or suggested by the cited references, whether taken alone or in combination (and that) applicant disagrees with the Office Action's (previous and presumably above) assertion that, ‘The patent to Raines discloses that it is known in the art to employ a ‘quick disconnect’ at the friction fit of the syringe and its

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inlet/outlet port at the end of the syringe with the 'common refill/evacuation location' chamber 100 for the purpose of permitting simple, easy, and repeatable connection of the inlet/outlet port to the refill/evacuation location' (by reason that) Raines does not possess an "inlet/outlet port" structured for performing fluid refill and evacuation processes"

as well as the argument that:

"at least one quick disconnect connection operatively associated with said inlet/outlet port' as recited in Claim 1, for example, is not taught, disclosed, or suggested by Raines (by reason that) the 'inlet/outlet port' recited in Claim 1 is 'in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location' (and that) The syringe described in Raines does not structurally or functionally correspond to a 'quick disconnect connection' at a 'common refill/evacuation location' and in operative association with an 'inlet/outlet port' consistent with the recitation of Claim 1"

are unpersuasive.

Firstly, regarding the recitation of "quick disconnect connection", as evidenced by applicants remarks, applicant fails to note any claim language (other than the term itself) and/or where in the application as originally filed disclosure can be found which would provide for the alleged distinctness of the claimed "quick disconnect connection" from any other reasonably construed "quick disconnect connection". In this regard, applicants further statements that the connection of the end of the syringe to the valve assembly of Raines "does not structurally and functionally correspond... consistent with" that recited in claim 1, fail to point out, for example, why the friction abutment of the end of the syringe S of Raines, with the valve assembly at lip 66 of the bore 60, is not a "quick disconnect connection" within the scope of that term as used in the claim. Thus applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically

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pointing out how the language of the claims patentably distinguishes them from the references.

Secondly, concerning the argument that Raines fails to include a “common refill/evacuation port operatively associated with an inlet/outlet port”, attention is directed to port/bore 60 of Raines. Bore 60, relative to the remaining valve assembly is reasonably construed as a “common refill/evacuation location”, the opening 68 thereof being reasonably construed as an “inlet/outlet port”. When the syringe S is in friction/abutment contact with the lip 66 of the opening 68, and the syringe is operated, fluid is both extracted and supplied to the valve assembly. When the syringe plunger is retracted away from the valve assembly fluid is “evacuated” (i.e. removed from) the valve assembly by flowing through the inlet check valve. Upon reversal of the syringe plunger, fluid is supplied from the syringe, i.e. a “refill process”, supplying fluid to the valve assembly with fluid which flows through the outlet check valve. The syringe, between motions, is not relocated from contact with the lip 66. Thus the bore 60 is considered to be reasonably construed as a “common refill/evacuation location”, the opening 68 thereof being considered to be reasonably construed as an “inlet/outlet port”.

Further, applicants argument that:

“Raines is only used as a mechanism to facilitate transfer of liquid from a source through a first valve disc in an aspiration procedure, to the interior of the valve assembly, and then onward through a second valve disc in an injection procedure. (See Raines - col. 1, lines 48-63)”

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is a correct assessment of the disclosure of Raines. However, the conclusion that:

“Raines does not function to refill or evacuate fluids through an ‘inlet/outlet port’ at a ‘common refill/evacuation location’ much less in operative association with a ‘quick disconnect connection’ at the ‘common refill/evacuation location’(whereas)... Claim 1 recites ‘at least one quick disconnect connection operatively associated with said inlet/outlet port’ and ‘the inlet/outlet port in direct fluid communication... at the common refill/evacuation location’ (and thus)... the cited references do not teach, suggest, or disclose the combination of an ‘inlet/outlet port’ at a ‘common refill/evacuation location’ and in operative association with a ‘quick disconnect connection’”

again fails to note any claim language (other than the terms themselves) and/or where in the application as originally filed disclosure can be found which would provide for the alleged distinctness of the language of the claims from any other reasonably construed structure of the prior art.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN RIVELL whose telephone number is (571)272-4918. The examiner can normally be reached on Mon.-Fri. from 6:00am-2:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/John Rivell/
John Rivell
Primary Examiner
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